AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for calculating electromagnetic radiation in a computer system, comprising:

determining the distance of a central processing unit from a heat sink;

determining a number of fins and a number of bars of the heat sink;

determining the heat sink fin geometry;

determining if capacitive coupling exists between the heat sink and the central processing unit for adjusting fin size;

determining if inductive coupling exists between the heat sink and the central processing unit for adjusting the number of fins and the number of bars;

determining current density across the heat sink for adjusting the fin geometry;

<u>determining current loop length defined by a current path over a surface of the heat sink and adjusting the current loop length by adjusting one or more of, the number of fins, the number of bars, and the fin geometry;</u>

modeling characteristic radiation from the central processing unit as a modulated Gaussian pulse; and

estimating the electromagnetic field produced by the central processing unit using finite differences in time domain (FDTD) to solve Maxwell's equation.

2. (Cancelled).

3. (Original) The method as recited in claim 1, further comprising:

reducing radiation noise by reducing capacitive coupling between the heat sink and the central processing unit.

4. (Cancelled).

5. (Original) The method as recited in claim 1, further comprising:

reducing radiation noise by reducing inductive coupling between the heat sink and the central processing unit.

6. (Currently Amended) A method of designing a computer system, comprising:

determining the distance of a central processing unit from a heat sink;

determining a number of fins and a number of bars of the heat sink;

determining the heat sink fin geometry;

determining if capacitive coupling exists between the heat sink and the central processing unit for adjusting fin size;

determining if inductive coupling exists between the heat sink and the central processing unit for adjusting the number of fins and the number of bars;

determining current density across the heat sink for adjusting the fin geometry;

<u>determining current loop length defined by a current path over a surface of the heat sink and adjusting the current loop length by adjusting one or more of, the number of fins, the number of bars, and the fin geometry;</u>

modeling the characteristic radiation from the central processing unit as a modulated Gaussian pulse;

estimating the electromagnetic fields produced by the central processing unit using finite differences in the time domain (FDTD) to solve Maxwell's equation; and

using a fast Fourier transform to translate time domain data to frequency domain.

7. (Original) The method as recited in claim 6, further comprising:

reducing radiation noise by reducing capacitive coupling between the heat sink and the central processing unit.

8. (Original) The method as recited in claim 6, further comprising:

reducing radiation noise by reducing inductive coupling between the heat sink and the central processing unit.

9. (Cancelled).

10. (Currently Amended) A method of manufacturing a computer system, comprising:

determining the distance of a central processing unit from a heat sink;

determining a number of fins and a number of bars of the heat sink;

determining the heat sink fin geometry;

determining if capacitive coupling exists between the heat sink and the central processing unit for adjusting fin size;

determining if inductive coupling exists between the heat sink and the central processing unit for adjusting the number of fins and the number of bars;

determining current density across the heat sink for adjusting the fin geometry;

determining current loop length defined by a current path over a surface of the heat sink and adjusting the current loop length by adjusting one or more of, the number of fins, the number of bars, and the fin geometry;

modeling characteristic radiation from the central processing unit as modulated Gaussian pulse;

estimating the electromagnetic field-produced by the central processing unit using finite differences in a time domain (FDTD) to solve Maxwell's equation;

reducing radiation noise by reducing capacitive coupling between the heat sink and the central processing unit; and

reducing radiation noise by reducing inductive coupling between the heat sink and the central processing unit.

11. (Original) The method as recited in claim 10, further comprising:

using a fast Fourier transform to translate time domain data to frequency domain.

12. (Cancelled).

13. (Cancelled).

14. (Cancelled).

15. (Cancelled).

16. (Currently Amended) A computer system, comprising:

a central processing unit,

a heat sink coupled to the central processing unit, the heat sink having fins and bars, the ~~number of fins and the number of bars of the heat sink~~

computer system having electromagnetic radiation being determined by:

determining the distance of a central processing unit from a heat sink;

determining a number of fins and a number of bars of the heat sink;

determining the heat sink fin geometry;

determining if capacitive coupling exists between the heat sink and the central processing unit for adjusting fin size;

determining if inductive coupling exists between the heat sink and the central processing unit for adjusting the number of fins and the number of bars;

determining current density across the heat sink for adjusting the fin geometry;

determining current loop length defined by a current path over a surface of the heat sink and adjusting the current loop length by adjusting one or more of, the number of fins, the number of bars, and the fin geometry;

modeling characteristic radiation from the central processing unit as a modulated Gaussian pulse; and

estimating the electromagnetic field-produced by the central processing unit using finite differences in a time domain to solve Maxwell's equation.

17. (Original) A computer system as recited in claim 16, further comprising:

reducing radiation noise by reducing capacitive coupling between the heat sink and the central processing unit.

18. (Currently Amended) A computer system, comprising:

a central processing unit;

a heat sink coupled to the central processing unit, the heat sink having fins and bars, the ~~number of fins and the number of bars of the heat sink~~ computer system having electromagnetic radiation being determined by:

determining the distance of a central processing unit from a heat sink;

determining a number of fins and a number of bars of the heat sink;

determining the heat sink fin geometry;

determining if capacitive coupling exists between the heat sink and the central processing unit for adjusting fin size;

determining if inductive coupling exists between the heat sink and the central processing unit for adjusting the number of fins and the number of bars;

determining current density across the heat sink for adjusting the fin geometry;

determining current loop length defined by a current path over a surface of the heat sink and adjusting the current loop length by adjusting one or more of, the number of fins, the number of bars, and the fin geometry;

modeling characteristic radiation from the central processing unit as modulated Gaussian pulse;

estimating the electromagnetic field-produced by the central processing unit using finite differences in a time domain to solve Maxwell's equation; and

reducing radiation noise by reducing inductive coupling between the heat sink and the central processing unit.

19. (Original) A computer system as recited in claim 18, further comprising:

using a fast Fourier transform to translate time domain data to frequency domain.

20. (Currently Amended) A heat sink for a computer system, the heat sink coupled to a central processing unit, the heat sink having fins and bars, the ~~number of fins and the number of bars of the heat sink~~ computer system having electromagnetic radiation being determined by:

determining the distance of a central processing unit from a heat sink;

determining a number of fins and a number of bars of the heat sink;

determining the heat sink fin geometry;

determining if capacitive coupling exists between the heat sink and the central processing unit for adjusting fin size;

determining if inductive coupling exists between the heat sink and the central processing unit for adjusting the number of fins and the number of bars;

determining current density across the heat sink for adjusting the fin geometry;

determining current loop length defined by a current path over a surface of the heat sink and adjusting the current loop length by adjusting one or more of, the number of fins, the number of bars, and the fin geometry;

modeling characteristic radiation from the central processing unit as modulated Gaussian pulse; and

estimating the electromagnetic field-produced by the central processing unit using finite differences in a time domain to solve Maxwell's equation.